Appendix A

aconst_null OP_PUSHB iconst_ml OP_PUSHB iconst_0 OP_PUSHB iconst_1 OP_PUSHB iconst_2 OP_PUSHB iconst_3 OP_PUSHB iconst_4 OP_PUSHB iconst_5 OP_PUSHB lconst_0 OP_PUSHL lconst_1 OP_PUSHL fconst_1 OP_PUSH fconst_2 OP_PUSH dconst_0 OP_PUSHL dconst_1 OP_PUSHL bipush OP_PUSHB sipush OP_PUSH	nop	IGNORE_OPCODE
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iconst_1 OP_PUSHB iconst_2 OP_PUSHB iconst_3 OP_PUSHB iconst_4 OP_PUSHB iconst_5 OP_PUSHB lconst_0 OP_PUSHL lconst_1 OP_PUSHL fconst_0 OP_PUSH fconst_1 OP_PUSH fconst_2 OP_PUSH dconst_0 OP_PUSHL dconst_1 OP_PUSHL bipush OP_PUSHB sipush OP_PUSH	iconst_ml	OP_PUSHB
iconst_2 OP_PUSHB iconst_3 OP_PUSHB iconst_4 OP_PUSHB iconst_5 OP_PUSHB lconst_0 OP_PUSHL lconst_1 OP_PUSHL fconst_0 OP_PUSH fconst_1 OP_PUSH fconst_2 OP_PUSH dconst_0 OP_PUSHL dconst_1 OP_PUSHL bipush OP_PUSHB sipush OP_PUSH	iconst_0	OP_PUSHB
iconst_3 OP_PUSHB iconst_4 OP_PUSHB iconst_5 OP_PUSHB lconst_0 OP_PUSHL lconst_1 OP_PUSHL fconst_0 OP_PUSH fconst_1 OP_PUSH fconst_2 OP_PUSH dconst_0 OP_PUSHL dconst_1 OP_PUSHL bipush OP_PUSHB sipush OP_PUSH	iconst_1	OP_PUSHB
iconst_4 OP_PUSHB iconst_5 OP_PUSHB lconst_0 OP_PUSHL lconst_1 OP_PUSHL fconst_0 OP_PUSH fconst_1 OP_PUSH fconst_2 OP_PUSH dconst_0 OP_PUSHL dconst_1 OP_PUSHL bipush OP_PUSHB sipush OP_PUSH	iconst_2	OP_PUSHB
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Iconst_0	iconst_4	OP_PUSHB
Const_1	iconst_5	OP_PUSHB
fconst_0 OP_PUSH fconst_1 OP_PUSH fconst_2 OP_PUSH dconst_0 OP_PUSHL dconst_1 OP_PUSHL bipush OP_PUSHB sipush OP_PUSH	lconst_0	OP_PUSHL
fconst_1 OP_PUSH fconst_2 OP_PUSH dconst_0 OP_PUSHL dconst_1 OP_PUSHL bipush OP_PUSHB sipush OP_PUSH	lconst_1	OP_PUSHL
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dconst_0 OP_PUSHL dconst_1 OP_PUSHL bipush OP_PUSHB sipush OP_PUSH	fconst_1	OP_PUSH
dconst_1	fconst_2	OP_PUSH
bipush OP_PUSHB sipush OP_PUSH	dconst_0	OP_PUSHL
sipush OP_PUSH	dconst_1	OP_PUSHL
<u> </u>	bipush	OP_PUSHB
	sipush	OP_PUSH
ldc OP_PUSH	ldc	OP_PUSH
ldc_w OP_PUSH	ldc_w	OP_PUSH
ldc2_w OP_PUSHL	ldc2_w	OP_PUSHL
iload OP_LOAD	iload	OP_LOAD
lload OP_LOADL	lload	OP_LOADL
fload OP_LOAD	fload	OP_LOAD
d1oad OP_LOADL	d1oad	OP_LOADL
aload OP_LOAD	aload	OP_LOAD
iload_0 OP_LOAD	iload_0	OP_LOAD
iload_1 OP_LOAD	iload_1	OP_LOAD
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dload_0	OP_LOADL
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dload_2	OP_LOADL
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laload	OP_ALOAD
faload	OP_ALOAD
daload	OP_ALOAD
aaload	OP_ALOAD
baload	OP_ALOAD
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istore	OP_STOR
Istore	OP_STORL
fstore	OP_STOR
dstore	OP_STORL
astore	OP_STOR
istore_0	OP_STOR
istore_1	OP_STOR
istore_2	OP_STOR
istore_3	OP_STOR
1store_0	OP_STORL
1store_1	OP_STORL
Istore_2	OP_STORL
1store_3	OP_STORL
fstore_0	OP_STOR
fstore_1	OP_STOR

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pop OP_POP pop2 OP_POP dup OP_DUP dup_x1 OP_DUP dup_x2 OP_DUP dup2 OP_DUPL dup2_x1 OP_DUPL dup2_x2 OP_DUPL swap OP_SWAP iadd OP_IADD ladd OP_FADD dadd OP_DADD isub OP_ISUB lsub OP_LSUB fsub OP_FSUB	castore	OP_ASTORE
pop2 OP_POP dup OP_DUP dup_x1 OP_DUP dup_x2 OP_DUP dup2 OP_DUPL dup2_x1 OP_DUPL dup2_x2 OP_DUPL swap OP_SWAP iadd OP_IADD ladd OP_LADD fadd OP_DADD isub OP_ISUB lsub OP_LSUB fsub OP_FSUB	sastore	OP_ASTORE
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dup2_x1 OP_DUPL dup2_x2 OP_DUPL swap OP_SWAP iadd OP_IADD ladd OP_LADD fadd OP_FADD dadd OP_DADD isub OP_ISUB lsub OP_LSUB fsub OP_FSUB	dup_x2	. =
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swap OP_SWAP iadd OP_IADD ladd OP_LADD fadd OP_FADD dadd OP_DADD isub OP_ISUB lsub OP_LSUB fsub OP_FSUB	dup2_x1	OP_DUPL
iadd OP_IADD ladd OP_LADD fadd OP_FADD dadd OP_DADD isub OP_ISUB lsub OP_LSUB fsub OP_FSUB	dup2_x2	OP_DUPL
ladd	swap	OP_SWAP
fadd OP_FADD dadd OP_DADD isub OP_ISUB lsub OP_LSUB fsub OP_FSUB	iadd	OP_IADD
dadd OP_DADD isub OP_ISUB Isub OP_LSUB fsub OP_FSUB	ladd	OP_LADD
Sub	fadd	OP_FADD
Isub OP_LSUB fsub OP_FSUB	dadd	OP_DADD
fsub OP_FSUB	isub	OP_ISUB
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dsub OP_DSUB	fsub	OP_FSUB
	dsub	OP_DSUB
imul OP_IMUL	imul	OP_IMUL

lmul	OP_LMUL
fmul	OP_FMUL
dmul	OP_DMUL
idiv	OP_IDIV
ldiv	OP_LDIV
fdiv	OP_FDIV
ddiv	OP_DDIV
irem	OP_IREM
Irem	OP_LREM
frem	OP_FREM
drem	OP_DREM
ineg	OP_INEG
Ineg	OP_LNEG
fneg	OP_FNEG
dneg	OP_DNEG
ishl	OP_ISHL
Ishl	OP_LSHL
ishr	OP_ISHR
Ishr	OP_LSHR
iushr	OP_IUSHR
lushr	OP_LUSHR
iand	OP_IAND
land	OP_LAND
ior	OP_IOR
lor	OP_LOR
ixor	OP_IXOR
Ixor	OP_LXOR
iinc	OP_IINC
i2l	OP_I2L
i2f	IGNORE_OPCODE
i2d	OP_I2D
12i	OP_L2I
12f	OP_L2F
12d	OP_L2D
f2i	IGNORE_OPCODE
f2I	OP_F2L

f2d	OP_F2D
d2i	OP_D2I
d2l	OP_D2L
d2f	OP_D2F
i2b	IGNORE_OPCODE
i2c	IGNORE_OPCODE
i2s	IGNORE_OPCODE
Icmp	OP_LSUB, OP_JMPEQ
fcmpl	OP_FSUB, OP_JMPLE
fcmpg	OP_FSUB, OP_JMPGE
dcmpl	OP_DCMP, OP_JMPLE
dcmpg	OP_DCMP, OP_JMPGE
ifeq	OP_JMPEQ
ifne	OP_JMPNE
iflt	OP_JMPLT
ifge	OP_JMPGE
ifgt	OP_JMPGT
ifle	OP_JMPLE
if icmpeq	OP_ISUB, OP_JMPEQ
if icmpne	OP_ISUB, OP_JMPNE
if icmplt	OP_ISUB, OP_JMPLT
if icmpge	OP_ISUB, OP_JMPGE
if icmpgt	OP_ISUB, OP_JMPGT
if icmple	OP_ISUB, OP_JMPLE
if acmpeq	OP_ISUB, OP_JMPEQ
if acmpne	OP_ISUB, OP_JMPNE
goto	OP_JMP
jsr	OP_JSR
ret	OP_RET
tableswitch	OP_SWITCH
lookupswitch	OP_SWITCH
ireturn	OP_RETURN
Ireturn	OP_LRETURN
freturn	OP_RETURN
dreturn	OP_LRETURN
areturn	OP_RETURN

return	OP_RETURNV
getstatic	OP_RESOLVE
putstatic	OP_RESOLVEP
getfield	OP_RESOLVE
putfield	OP_RESOLVEP
invokevirtual	OP_RESOLVE
invokespecial	OP_RESOLVE
invokestatic	OP_RESOLVE
invokeinterface	OP_RESOLVE
xxxunusedxxx	IGNORE_OPCODE
new	OP_NEW
newarray	OP_NEW
anewarray	OP_NEW
arraylength	OP_ARRAYLENGTH
athrow	OP_THROW
checkcast	IGNORE_OPCODE
instanceof	OP_INSTANCEOF
monitorenter	OP_MUTEXINC
monitorexit	OP_MUTEXDEC
wide	OP_WIDE
multianewarray	OP_NEW
ifnull	OP_JMPEQ
ifnonnull	OP_JMPNE
goto_w	OP_JMP
jsr_w	OP_JSR